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10/812,124

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Ashutosh Dutta

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EXAMINER

ZHU, BO HUI ALVIN

ART UNIT

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2419

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/812,124	Applicant(s) DUTTA ET AL.	
	Examiner BO HUI A. ZHU	Art Unit 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Request for continued Examination (RCE) filed on December 12, 2008 has been submitted.

No claims have been amended.

No new claims have been added.

Claims 1 – 14 are still pending.

Claims 1 – 14 are rejected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 5 - 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar (US 2004/0085931) in view of Dommety et al. ("Fast Handovers for Mobile IPv6", pages 9 - 13) and further in view of Dennison et al. (US 6,847,822).

(1) with regard to claims 1 and 8:

Rezaiifar discloses a system and method, comprising: a first information gateway (14 on Fig. 1A) associated with a first mobile coverage area (coverage area of 14, 6 and

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8 on Fig. 1A) said first information gateway including first storage means for storing a list of available IP addresses in said first mobile coverage area (each PDSN contains a pool of addresses that are assigned to it; paragraphs [0026] and [0031]); a second information gateway (16 on Fig. 1) associated with a second mobile coverage area (the coverage area of 16, 10 on Fig 1A), said second mobile coverage area neighboring said first mobile coverage area, said second information gateway including second storage means for storing a list of available IP addresses in said second mobile coverage area (like every other PDSN, PDSN 16 contains a pool of addresses that are assigned to it to be used only in its coverage area); a first communication means for said first information gateway and said second information gateway to communicate (IP network 18 on Fig. 1A); a mobile user unit (2 on Fig. 1A); and a second communication means for said mobile user unit to communicate with said first information gateway or said second information gateway (mobile station 2 can communicate with PDSN 14 and PDSN 16, when it moves from one coverage area to another).

Rezaiifar does not disclose the mobile user unit having GPS means to identify the geographic location of said mobile user unit; and prior to said first mobile user unit moving out of said first mobile coverage area into said second mobile coverage area, establishing communication between said first information gateway and said second information gateway via said first communication means; sending at least one available IP address stored in said second storage means of the said second information gateway to said first information gateway; and sending said available IP address to said

mobile user unit; and configuring said mobile user unit to use said available IP address upon entering said second mobile coverage area.

Dommetty et al. teaches the limitation of prior to said first mobile user unit moving out of said first mobile coverage area into said second mobile coverage area; establishing communication between said first information gateway and said second information gateway via said first communication means; sending at least one available IP address stored in said second storage means of the said second information gateway to said first information gateway; and sending said available IP address to said mobile user unit; and configuring said mobile user unit to use said available IP address upon entering said second mobile coverage area (page 12, 3rd, 4th and 5th paragraphs, "In order to obtain a new CoA ... just forward them as normal to the mobile node"). It would have been desirable to have the features as taught by Dommetty et al. because it would improve the efficiency of the handover process. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the features as taught by Dommetty et al. in the system of Rezaiifar.

Dennison et al. teaches a GPS means for identifying the geographic location of a mobile unit (24 on Fig. 7). It would have been desirable to have a GPS means on a mobile unit because it would allow the network service provider to have a better knowledge of the physical location of a service user, which would result in better network resource management and also the ability to provide extra services to the users. Therefore, it would have been obvious to one of ordinary skill in the art at the

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time of the invention to include a GPS means as taught by Dennison et al. in the system of Rezaiifar.

(2) with regard to claim 5:

Rezaiifar further discloses the first and second storage means consist of a database (a pool of address is viewed as a database).

(3) with regard to claims 6 and 7:

Rezaiifar further discloses the first and second mobile coverage areas are WLAN network, LAN network, IPv4 network or IPv6 network (because 14 and 16 are part of an IP network, inherently they have to be either IPv4 or IPv6 networks).

(4) with regard to claim 9:

Rezaiifar does not disclose dynamically updating said list of available IP addresses on said first and second storage means.

Dommety et al. teaches dynamically updating addresses on a storage means (page 14, section 3.1.3, 2nd paragraph, "If the new care-of-address is legal and acceptable to the new access router it adds it to the neighboring Cache..."). It would have been desirable to dynamically update the addresses stored because it would make the system more efficient by preventing connection failure, packet loss or other deficiencies from occurring due to changes in the network thus ensure the proper operation of the devices in the network.

4. Claims 2 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar (US 2004/0085931) in view of Dommety et al. ("Fast Handovers for Mobile

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IPv6”, pages 9 - 14) and Dennison et al. (US 6,847,822) and further in view of Johnson et al. (US 6,625,135).

(1) with regard to claims 2 - 4:

Rezaiifar does not disclose having an address conflict resolution means associated with each of said first information gateway and said second information gateway, wherein said address conflict resolution means comprises an ARP mechanism, wherein said ARP mechanism is selected from the group consisting of proxy ARP, inverse ARP, reverse ARP and DHCP ARP.

Johnson et al. teaches using proxy ARP (column 4, line 66 – column 5, line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to use proxy ARP because it would make allow users on different networks to be able to communicate with one another without having to know each other’s physical address, which would simplify the design of the network and make the network more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a proxy ARP in the system of Rezaiifar.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar (US 2004/0085931) in view of Dommety et al. (“Fast Handovers for Mobile IPv6”, pages 9 - 14) and Dennison et al. (US 6,847,822) and further in view of Budka et al. (US 7,224,983).

(1) with regard to claim 10:

Rezaiifar does not disclose establishing communication between said mobile user unit and said first information is performed upon boot up of said mobile user unit.

Budka et al. teaches a mobile device connecting to a base station when they first power on (column 1, line 20 – 25). This feature would have been desirable because it would shorten the time it takes for the mobile device to access to the network thus make the system more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the feature as taught by Budka et al. in the system of Rezaiifar.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar (US 2004/0085931) in view of Dommety et al. ("Fast Handovers for Mobile IPv6", pages 9 - 14).

(1) with regard to claim 11:

Rezaiifar discloses a system and method, comprising: an information gateway (14 on Fig. 1A) associated with a first mobile coverage area (coverage area of 14, 6 and 8 on Fig. 1A) said information gateway including first storage means for storing a list of available IP addresses in said first mobile coverage area (each PDSN contains a pool of addresses that are assigned to it to be used only in its coverage area).

Rezaiifar does not disclose dynamically updating said list of available IP addresses.

Dommety et al. teaches dynamically updating addresses (page 14, section 3.1.3, 2nd paragraph, "If the new care-of-address is legal and acceptable to the new access

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router it adds it to the neighboring Cache...”). It would have been desirable to dynamically update the addresses stored because it would make the system more efficient by preventing connection failure, packet loss or other deficiencies from occurring due to changes in the network thus ensure the proper operation of the devices in the network.

7. Claims 12 – 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rezaiifar (US 2004/0085931) in view of Dommety et al. (“Fast Handovers for Mobile IPv6”, pages 9 - 14) and further in view of Johnson et al. (US 6,625,135).

(1) with regard to claims 12 - 14:

Rezaiifar does not disclose having an address conflict resolution means associated with each of said first information gateway and said second information gateway, wherein said address conflict resolution means comprises an ARP mechanism, wherein said ARP mechanism is selected from the group consisting of proxy ARP, inverse ARP, reverse ARP and DHCP ARP.

Johnson et al. teaches using proxy ARP (column 4, line 66 – column 5, line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to use proxy ARP because it would make allow users on different networks to be able to communicate with one another without having to know each other’s physical address, which would simplify the design of the network and make the network more efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a proxy ARP in the system of Rezaiifar.

Response to Arguments

8. Applicants' arguments filed on December 12, 2008 have been fully considered but they are not persuasive.

9. Applicants contends that none of the references teach "proactively initiating the handovers using the GPS means to predict or anticipate the change of location" "using the GPS information to predict the change or starting the handover process earlier" or "the access router selects when to start the process and which access router to handover based upon GPS information" (Remarks, page 7 – 8). Examiner respectfully disagrees. Regarding the features of the GPS means of the claimed invention, the claimed invention merely recites "... having GPS means to identify the geographic location of said mobile user unit" and "... providing the geographic location of said mobile user unit to said first information gateway". The claim invention does not require "proactively initiating the handovers using the GPS means to predict or anticipate the change of location" "using the GPS information to predict the change or starting the handover process earlier" or "the access router selects when to start the process and which access router to handover based upon GPS information" Dennison teaches geographic location of a mobile unit is determined by using a GPS system and the geographic location is sent to a MTSO (mobile telecommunications switching office) to determine which cell site is most appropriate for use by the mobile unit (see column 9, lines 24 - 34). Thus, Dennison teaches every feature of the GPS means of the claimed invention.

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10. Applicants further argue that the cited references does not teach "a first storage means for storing a list of available IP addresses in said first mobile coverage area and a second storage means for storing a list of available IP addresses in said second mobile coverage area" Applicants assert that the references only disclose storing a list of used IP addresses or a pool of assignable IP addresses dedicated to a specific area. (Remarks, page 8 – 9). Examiner respectfully disagrees. Examiner respectfully notes since the reference (Rezaiifar) discloses at least two such specific areas, and each specific area has a pool of dedicated IP addresses, that "storing a list of used IP addresses or a pool of assignable IP addresses dedicated to a specific area" can be broadly interpreted as "a first storage means for storing a list of available IP addresses in said first mobile coverage area and a second storage means for storing a list of available IP addresses in said second mobile coverage area."

Conclusion

11. This is a continuation of applicant's earlier Application No. 10,812,124. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BO HUI A. ZHU whose telephone number is (571)270-1086. The examiner can normally be reached on Mon-Thur 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571)272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. A. Z./
Examiner, Art Unit 2419

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2419